

In view of the foregoing, Applicants respectfully request that the rejections under Section 112 be withdrawn.

IV. The Art Rejections

The Action rejects all of the pending claims under either Section 102(b) or 103(a) over eight different references. Applicants address the inapplicability of these references separately below.

U.S. Patent No. 5,525,410 to Hansen (Hansen)

In rejecting Claims 1-3, 6 and 8 under Section 102(b), the Action states that Hansen discloses "a seamed, woven press fabric with a fibrous batt, whereby the base fabric is made of longitudinal and transverse yarns comprising a plurality of twisted filaments in the cross-machine (transverse) direction." The Action concludes that this disclosure anticipates Claim 1.

In response, Applicants note that Hansen discloses "multi-strand" yarns rather than twisted monofilaments as recited in Claim 1.¹ In fact, Hansen distinguishes its "multi-strand" yarns from monofilaments in stating that "the papermaker's fabrics of the present invention have characteristics falling between those woven from plied monofilament and plied multifilament yarns." See Hansen at column 2, lines 48-50. Because Hansen fails to disclose all of the elements of Claim 1, Applicants submit that the rejection under Section 102(b) cannot stand, and request that it be withdrawn.

In addition, Applicants submit that felts formed of multi-strand yarns typically suffer from poor compaction resistance, whereas the felts of the present invention do not. Also, Hansen clearly teaches away from the use of plied monofilaments, stating that "[w]here monofilaments are used, the blockage [of the passage of water] occurs because of the relative thickness of the yarns." In view of these teachings, Applicants submit that the ordinarily skilled artisan would not have conceived the present invention based on Hansen.

¹ U.S. Patent No. 5,508,094 to McCarthy et al., cited *supra*, states that "a multistrand yarn may be considered to be equivalent to an untwisted multifilament yarn." See McCarthy at column 3, line 67 to column 4, line 1.

U.S. Patent No. 5,508,094 to McCarthy et al (McCarthy)

reject still

The Action rejects Claims 1-3, 8 and 9 under Section 102(b) over McCarthy, stating that "McCarthy discloses a seamed press fabric with longitudinal and transverse threads and a fibrous batt needled thereto, whereby the weft (transverse) threads can comprise eight strands of twisted monofilaments." This characterization is incorrect, as McCarthy actually discloses "a multifilament yarn comprising eight strands of 0.10 mm (4 mil) filament twisted together." See McCarthy at column 3, lines 59-60. The ordinarily skilled artisan in this field recognizes that there is a distinct difference between "twisted monofilaments" and "multifilaments"; these are very different types of yarns with very different properties, and are not viewed in this art as being interchangeable in most applications. As such, Applicants submit that McCarthy cannot anticipate Claim 1, and respectfully request that this rejection be withdrawn.

U.S. Patent No. 5,391,419 to Davenport (Davenport)

OK

The Action rejects Claims 1, 2 and 6 under Section 102(b) over Davenport, which is characterized as disclosing a seamed press fabric with a woven base, wherein the woven base includes "cross-direction (transverse) yarns [comprising] a multifilamented core of twisted monofilaments." In fact, Davenport discloses a coated multifilament yarn which usually has "about 100 filaments in each bundle." See Davenport at column 4, lines 53-56. Because the yarns of Davenport are multifilaments rather than the twisted monofilaments recited in Claim 1, Applicants submit that Claim 1 avoids Davenport for the same reasons as discussed above in connection with McCarthy.

U.S. Patent No. 5,087,327 to Hood (Hood)

OK

The Action rejects Claims 1-4 and 7-9 under Section 102(b) over Hood, which is characterized as disclosing a papermaker's fabric with a woven base, wherein the woven base includes transverse yarns that "comprise a twisted structure." Applicants submit that the transverse yarns shown in **Figures 3 and 4** of Hood do not meet the recitation of Claim 1 of a "twisted structure comprising at least three monofilaments," as **Figures 3A and 3B** show braided yarns, and **Figures 4A and 4B** show a core yarn around which a monofilament yarn is helically wound. Neither of these configurations would be recognized by one skilled in this

art as a "twisted structure comprising at least three monofilaments." Accordingly, Applicants respectfully request that this rejection be withdrawn.

U.S. Patent No. 4,425,392 to Oikawa (Oikawa) OK

The Action rejects Claims 1 and 3-5 under Section 102(b) over Oikawa. The Action states, *inter alia*, that Oikawa discloses a seamed papermaking felt with two woven layers, wherein the warp and weft yarns are used to join the layers. Two monofilaments twisted together may be used as both warp and weft yarns.

Applicants note that the Oikawa structure fails to meet the recitation of weft yarns that are twisted structures that are substantially circular in cross-section and that comprise at least three monofilaments. As such, Oikawa cannot anticipate Claim 1 under Section 102(b).

Moreover, it is clear that the Oikawa fabric are limited to weft yarns that are formed from two monofilaments. The specification discusses the unsuitability of two monofilaments; more specifically, the specification states that "a twisted structure made of only two monofils has a cross-section in the shape of two circles side by side" (*see* the specification at page 3, lines 31-33) rather than a cross-section that is "substantially circular" as recited in the claims. The specification discusses at some length the performance advantages that may be achieved with this configuration (*id.* at page 3, lines 14-30). None of these performance advantages are in any manner suggested by Oikawa. Accordingly, Applicants submit that the claimed subject matter is free of Oikawa under Section 103(a) also.

U.S. Patent No. 4,350,731 to Siracusano (Siracusano) OK

The Action rejects Claims 1, 6 and 7 under Section 1029b) over Siracusano, which is characterized as disclosing a press felt having yarns that comprise "a core multifilamented yarn wrapped in both directions by twisted elastomeric elements." In response, Applicants point out that the yarns of the felt shown in Siracusano have an internal core and one or more layers of monofilament yarns wrapped over them. They do not meet the recitation of the claims that at least three monofilaments be twisted together. Consequently, Siracusano cannot anticipate the claims, and Applicants request that the rejections under Section 102(b) be withdrawn.

Further, nowhere does Siracusano suggest the recited configuration. Nor does Siracusano in any manner recognize the performance advantages that can be achieved with the recited configuration. As such, Applicants submit that the claimed subject matter is free of Siracusano under Section 103(a) also.

U.S. Patent No. 5,618,612 to Gstrein (Gstrein)

reject again

The Action rejects Claims 1-3 and 8 under Section 102(b) or, in the alternative, Section 103(a) over Gstrein. The Action states that Smart discloses a papermaker's felt having a base fabric with "twist yarns in the cross machine direction in which two or more single yarns are twisted together to form a plied monofilament twist."

Gstrein fails to identify a twisted structure that is "substantially round in cross section" formed of "at least three monofilaments". Gstrein also fails to appreciate the performance advantages such a structure can provide. Accordingly, Applicants submit that Gstrein neither anticipates the claimed subject matter under Section 102(b) nor renders it obvious under Section 103(a).

U.S. Patent No. 4,503,113 to Smart (Smart)

OK

The Action rejects Claims 1-3, 5, 8 and 9 under Section 102(b) or, in the alternative, Section 103(a) over Smart. Smart is characterized as disclosing a three-layered base fabric within a press felt. For the uppermost CMD yarns, Smart discloses a yarn that "consists of 4 strands of 0.008" polyamide monofilament twisted together to form a yarn 0.021" in diameter."

In response, Applicants note that the present specification excludes twisted systems comprising four yarns. More specifically, the specification states "'a twisted structure made of four monofils has a substantially four-cornered shape with rounded corners" rather than being of "substantially round cross-section" as recited in Claim 1. Accordingly, Smart cannot anticipate Claim 1 under Section 102(b), and Applicants request that this rejection be withdrawn.

In addition, Smart fails to suggest a twisted structure comprising at least three monofilaments and being substantially round in cross-section. Smart is clearly directed to a press felt having a coarse bottom layer and a fine top layer, and is not specific about

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including the recited weft yarns. Smart makes no mention of the performance advantages achievable with the recited yarns. As a result, Applicants respectfully request that the alternative rejection under Section 103(a) be withdrawn.

V. **Conclusion**

The concerns of the Examiner having been addressed in full, Applicants respectfully request withdrawal of all outstanding rejections and the issuance of a Notice of Allowance forthwith. The Examiner is encouraged to address any questions regarding the foregoing to the undersigned, who may be reached at (919) 854-1400.

Respectfully submitted,

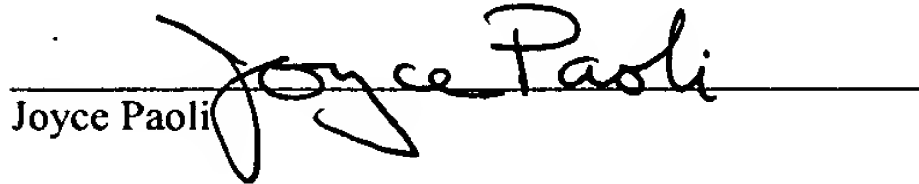


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CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, Washington, DC 20231, on March 25, 2003.



Joyce Paoli

Version with Markings to Indicate Changes

Please amend the following claims as indicated below.

Claim 1. (amended) Seamed felt for use in a paper machine, with a textile backing element (20, 60, 100) that comprises threads oriented transversely (30) and longitudinally (40) with respect to the direction of transport of the paper machine, and onto which fibres (90) are needled to form a felt structure, characterized in that at least some of the transverse threads (30) exhibit a twisted structure (10) that is substantially circular in cross-section and that comprises at least three monofilaments twisted together.

Claim 4. (amended) Felt according to Claim 3, characterized in that two or more textile backing elements (60) are disposed one above another and, between [the] upper and [the] lower [layer] textile backing elements, fibres are embedded.

Claim 5. (amended) Felt according to Claim 3, characterized in that longitudinal (40) and/or transverse (30) threads of at least one upper layer (70) of the textile backing element (60, 100) are connected to longitudinal (40) and/or transverse (30) threads of at least one lower layer (80) of the textile backing element.

Clean Version of Claims for Serial No. 09/933,026

Please amend the claims to the form set forth below.

B1
Claim 1. (amended) Seamed felt for use in a paper machine, with a textile backing element (20, 60, 100) that comprises threads oriented transversely (30) and longitudinally (40) with respect to the direction of transport of the paper machine, and onto which fibres (90) are needed to form a felt structure, characterized in that at least some of the transverse threads (30) exhibit a twisted structure (10) that is substantially circular in cross-section and that comprises at least three monofilaments twisted together.

B2
Claim 4. (amended) Felt according to Claim 3, characterized in that two or more textile backing elements (60) are disposed one above another and between upper and lower textile backing elements, fibres are embedded.

Claim 5. (amended) Felt according to Claim 3, characterized in that longitudinal (40) and/or transverse (30) threads of at least one upper layer (70) of the textile backing element (60, 100) are connected to longitudinal (40) and/or transverse (30) threads of at least one lower layer (80) of the textile backing element.